

Remarks:

This response is directed to the Office Action mailed on February 6, 2004 setting a three month shortened statutory period for response expiring on May 6, 2004. In view of the amendments above and the following remarks, this application is now believed to be allowable and such action is earnestly requested.

35 USC 102(b) Rejection:

Claims 14-16 stand rejected under 35 USC 102(b) as anticipated by Peterson '443. The examiner states:

With regard to claim 14, Peterson shows a disc drive spindle motor assembly including: an information storage disc 17 mounted on a cylindrical hub 12; and means 40 (Fig. 4B) for providing a uniform, and centered clamping force to a top surface of the information storage disc.

It is respectfully submitted that this assertion is incorrect. Peterson does NOT show a means for providing a centered clamping force to the top surface of the information storage disc. There is nothing in Peterson that the examiner can point to that demonstrates centering. In fact, Peterson does not even utilize the word centering or centered anywhere in his specification, except with reference to a clamping screw threaded into the center of the spindle motor hub. See Col. 1, line 49. The focus of this patent is on providing a distributed clamping force without the use of a screw at all, not a means for providing a centered clamp force on the disc as Applicants claim in claim 14. Peterson essentially uses a bayonet engagement scheme to fasten a compression washer around a hub against a shim 37 which in turn presses upon the disc 17. Further, the washer 44 must have a clearance from the vertical walls of the hub 12 in order to be turned around the hub 12 in order to permit the lobes 46a,b,c to slip beneath and engage the complementary hub lobes 32a, b, and c. When so positioned, the spring washer 40 provides a vertical distributed load against the disc 17. There is no mention or suggestion in this patent to center the spring washer 40 in any way. The Peterson reference fails to provide every limitation. As a 35 USC 102(b) rejection requires finding each and every limitation in a single reference, the rejection of claims 14-17 is misapplied and should be withdrawn.

35 USC 103 Rejections:

Claims 1, 3, 5-10, 12, and 13-16 stand rejected under 35 USC 103(a) as unpatentable over Fletcher '346 in view of Peterson '443.

The examiner states that Fletcher shows a spindle motor hub 180 with an upwardly extending rim and an annular disc clamp 110 securing the disc to the hub, and showing the clamp having an annular web portion with a top edge of the inner portion 310 being rounded. While Fletcher does disclose a spindle motor hub, disc and a disc clamp, there is no disclosure of inwardly directed tabs in Fletcher. The examiner then looks to Peterson as having inwardly extending tabs 48A-C that extend toward the rim of the hub. The examiner is mistaken. The inwardly extending tabs in Peterson are 46A-C. See col. 3, lines 55-59. The examiner then concludes that it would have been obvious to reshape the inner edge of Fletcher's clamp as taught by Peterson.

Amended independent claims 1 and 9 now specifically recite that Applicant's inwardly directed tabs contact an upwardly extending surface of the rim to center the clamp on the hub as the clamp is placed on the hub. This limitation is not shown by either Peterson or Fletcher. Peterson's tabs fit beneath a lateral flange to provide a vertical compressive force onto the discs. Fletcher does not have tabs and is not centered except grossly by the series of screws installed through the clamp into the hub to secure the clamp to the discs. In addition, none of the other references cited in this application meet all of the limitations set forth in these independent claims. Accordingly, claims 1 and 9 and the claims depending therefrom are believed to patentably distinguish over the prior art. Support for the claim amendments is found in Applicant's specification on pages 7 and 8.

Claims 4 and 11 were rejected under 35 USC 103(a) over Fletcher in view of Peterson and further in view of applicant admitted prior art. In view of the amendments to claims 1 and 9 set forth above, and as claims 4 and 11 depend from independent claims 1 and 9 respectively, this rejection is believed to now be moot. These claims are believed to be allowable over the art of record.

Claims 14-16 were also rejected under 35 USC 103(a) over Fletcher in view of Peterson. The Examiner is respectfully reminded that claim 14 is written in means-plus-function form and therefore deserves the analysis accorded to it by the USPTO as promulgated under the supplemental guidelines for the examination of claims written in accordance with 35 U.S.C. §112, ¶6. These guidelines are applicable to and guide the determination of the patentability of claim 14-16 in the present case. See Supplemental Examination Guidelines for Determining the

Applicability of 35 U.S.C. 112, P6, 65 FR 38510, Federal Register Vol. 65, No. 120, June 21, 2000 hereinafter referred to as the "Guidelines."

It is respectfully submitted that the Examiner has failed to establish a prima facie case of unpatentability for the claims 14-16, and that the Examiner has failed to follow the relevant guidelines to establish such a case. Nevertheless, it is submitted that, when properly applied, the Guidelines require a finding of patentability of claim 14 as it is not obvious over Fletcher in view of Peterson, as discussed below.

The Guidelines set forth a three-part determination as to the applicability of 35 U.S.C. §112, sixth paragraph. Part I of the Guidelines sets forth the requirements for determining whether the claim invokes 35 U.S.C. § 112, sixth paragraph. If the claim uses the phrase "means for," the phrase is modified by functional language, and the phrase and functional language is not modified by sufficient structure to achieve the function, then it is presumed that the claim in fact invokes §112, ¶6.

Part II of the Guidelines sets forth requirements regarding whether the written description (specification and drawings) adequately describe the corresponding structure that carries out the recited function in the claims. This requirement is satisfied if the written description links or associates particular structure, material or acts to the recited function, or if one skilled in the art would have known what structure, material or acts perform the recited function.

Part III of the Guidelines sets forth requirements for establishing a prima facie case of equivalence by the Examiner, and involves a three-step inquiry: (1) whether the prior art element performs the function specified in the claim; (2) whether the prior art element is not excluded by any explicit definition provided in the specification for an equivalent; and (3) whether the prior art element is in fact an equivalent of the means-plus-function limitation.

The Guidelines further set forth four factors that will support a conclusion that the prior art element is an equivalent (step (3) above), as follows:

(3a) the prior art performs the identical function specified in the claim in substantially the same way, and produces substantially the same results as the corresponding element disclosed in the specification;

(3b) a person of ordinary skill in the art would have recognized the interchangeability of the element shown in the prior art for the corresponding element disclosed in the specification;

(3c) there are insubstantial differences between the prior art element and the corresponding element disclosed in the specification; and

(3d) the prior art element is a structural equivalent of the corresponding element disclosed in the specification.

A showing of at least one of these factors ((3a)-(3d)) will generally be sufficient to establish a prima facie case of unpatentability over the prior art element, after which the burden shifts to the Applicant to show that the prior art element is not an equivalent.

Claim 14 Analysis:

Claim 14 recites a "means for providing a uniform and centered clamping force to a top surface of the information storage disc." The Examiner found that "the Flecher (sic) and Peterson's device shows a disc drive spindle motor assembly including: an information storage disc mounted on a cylindrical hub; and means for providing a uniform, and centered clamping force to a top surface of the information storage disc." As discussed above with regard to the anticipation rejection, this statement is incorrect with regard to Peterson. Further, Fletcher does disclose a spindle motor hub, disc and a disc clamp, but there is no disclosure in Fletcher of inwardly directed tabs in Fletcher at all and no disclosure of centering.

Under 35 USC 103, to sustain the examiner's finding, all three parts of the above Guidelines must be satisfied. Part I of the Guidelines is satisfied. The means-plus-function language is properly used. Part II of the Guidelines is also satisfied. The recited function of claim 14 would be readily understood by one having ordinary skill in the art as being carried out by the disclosed structure including that described by Applicant on pages 7-10 of the specification and in the embodiments illustrated in FIGS. 2 - 7. This disc drive clamp function is clear. In re Allapat, 33 F.3d 1526 (Fed.Cir.1994).

An analysis of the three-step inquiry of Part III provides that claim 14 is neither anticipated by nor obvious in view of Fletcher and/or Peterson. As such, Part III is NOT satisfied.

The first step (1) of the three-step inquiry of Part III requires a showing that the structure of Fletcher combined with Peterson carries out the recited function of " means for providing a **uniform and centered** clamping force to a top surface of the information storage disc." Both references deal with providing uniform clamping forces. The Applicants submit that neither Fletcher nor Peterson perform the centering function. Peterson does NOT show a means for providing a centered clamping force to the top surface of the information storage disc. There is

nothing in Peterson that the examiner can point to that demonstrates centering. In fact, Peterson does not even utilize the word centering or centered anywhere in his specification, except with reference to a clamping screw threaded into the center of the spindle motor hub. See Col. 1, line 49. The focus of Peterson is on providing a distributed clamping force without the use of a screw at all, not a means for providing a centered clamp force on the disc as Applicants claim in claim 14. Peterson essentially uses a bayonet engagement scheme to fasten a compression washer around a hub against a shim 37 that in turn presses upon the disc 17. Fletcher allegedly provides uniform clamping force through a plurality of spaced screws 120. There is no discussion at all of centering the disc clamp in this patent either. Thus the examiner has not established that this first step (1) has been met.

The second step (2) requires a finding that the prior art element is not excluded by any explicit definition provided in the specification for an equivalent. The Applicants rely on the positive recitation of the structure as exemplifying one range of equivalents under §112, ¶ 6 including other structures that carry out the function of providing a uniform and centered clamping force as shown in FIGS. 2-7.

The third step (3) is satisfied if the Examiner can show Fletcher and Peterson to be equivalent to the Applicant's disclosed structure (e.g. FIG. 2-7 of Applicant's invention). The examiner has not shown Fletcher and Peterson to be equivalent to Applicant's disclosed structure.

As to factor (3a), the Court of Appeals for the Federal Circuit, in Kemco Sales, Inc. v. Control Papers Co., 54 USPQ2d 1308 (Fed.Cir.2000), provided a modified "function-way-result" test for the determination of 35 U.S.C. §112, ¶6 claim. The Court provided that "two structures may be 'equivalent' for purposes of section 112, ¶ 6 if they perform the identical function, in substantially the same way, with substantially the same result. *Id.* at 1315. See also *Odetics, Inc. v. Storage Tech. Corp.*, 185 F.3d 1259, 51 USPQ2d 1225 (Fed.Cir.1999).

As to factor (3b), a determination must be made whether or not one skilled in the art would have recognized the interchangeability of these two different systems. The Court of Appeals for the Federal Circuit stated that "the question of known interchangeability is an important factor in determining equivalence [under §112, ¶6]." *Al-Site Corp. v. VSI Int'l, Inc.*, 174 F.3d 1308, 1316, 50 USPQ2d 1161, 1165 (Fed.Cir.1999) citing *Chiuminatta Concrete Concepts v. Cardinal Indus., Inc.*, 145 F.3d 1303, 1309, 46 USPQ2d 1752, 1757 (Fed.Cir.1998). The Court of Claims provides that "[s]tated otherwise, equivalency is established where a person

reasonably skilled in the art would have known of the interchangeability of an ingredient not disclosed in the patent with one that was." *Lockheed Aircraft Corp. v. United States*, 553 F.2d 69, 83, 193 USPQ 449, 461 (Ct.Cl.1977).

In the present case, these systems are NOT interchangeable. Peterson is directed to a bayonet clamp system. Fletcher is directed to a distributed screw clamp ring. Therefore factors (3a) and (3b) is not met.

As to factor (3c), the Examiner must find that there is an insubstantial change between the present invention and the prior art. The Court of Appeals for the Federal Circuit has repeatedly commented on the importance of determining the level of difference between the present invention and the prior art. *IMS Technology, Inc. v. Haas Automation, Inc.*, 206 F.3d 1422, 1436, 54 USPQ2d 1129, 1138 (Fed.Cir.2000) citing *Odetics, Al-Site, and Chiuminatta*. Also, the Court directs "a comparison of the structure in the accused device which performs the claimed function to the structure in the specification." *Valmont Indus. v. Reinke Mfg. Co.*, 983 F.2d 1039, 1043, 25 USPQ2d 1451, 1455 (Fed.Cir.1993). The examiner has made no such finding. As such, factor (3c) is not met.

Finally, as to factor (3d), the Examiner must find that the prior art and the present invention are structurally equivalent. In *re Bond*, 910 F.2d 831, 833 15 USPQ2d 1566, 1568 (Fed.Cir.1990). Applicants submit that the structure, generally Applicant's FIG. 2 through 7, prevents a finding of structural equivalence. Therefore factor (3d) also is not met.

As none of the factors (3a) through (3d) can be met by a comparison of the present invention with Fletcher and Peterson, the third step of the Part III inquiry fails. The steps of Part III must be met to provide a prima facie finding of 35 U.S.C. §112, ¶6 equivalence. These steps were not met.

Therefore, the "means for providing a uniform and centered clamping force to a top surface of the information storage disc" is neither anticipated by nor obvious over any combination of Fletcher and Peterson and therefore claim 14 is patentable. It is respectfully requested that rejection under 35 USC 103(a) of independent claim 14 and its dependent claims 15 and 16 be withdrawn and the claims passed to issuance.

Conclusion:

Claims 1-16 remain pending in the application. This amendment is believed to be responsive to all points raised in the Office Action. Finally, each of the other references cited by the examiner have been reviewed during preparation of this response. None of these references taken either alone or in combination, meets each and every limitation set forth in Applicants' claims. Therefore all claims are believed to be allowable. In view of the above amendments and remarks, Applicant respectfully requests a Notice of Allowance. If the Examiner believes a telephone conference would advance the prosecution of this Application, the Examiner is invited to telephone the undersigned at the below-listed telephone number.


Respectfully submitted,

Date

5/3/04

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PATENT TRADEMARK OFFICE


John R. Wahl, Reg. No. 33,044
Merchant & Gould P.C.
P.O. Box 2903
Minneapolis, MN 55402-0903
(303) 357-1644
(303) 357-1671 (fax)